

## REMARKS

The Examiner maintained the rejection main claims 21 and 29 as being obvious based on Adams in view of Hamlin and a new reference Moura. The applicant respectfully traverses this rejection.

The Examiner agrees neither that Adams nor Hamlin teach the feature argued by the applicant, i.e. that a single output signal is transmitted to one of a plurality of communications interfaces, but asserts that this is taught by Moura, which is alleged to be analogous art.

The applicant respectfully submits that the claims previously amended to include this limitation are allowable. As claimed, the receiving device receives a *single output signal* from the redistributor. The current claims are reproduced above for convenience. This allows the system of the invention to transmit high bandwidth signals such as video over twisted pair telephone wire, where the prior art was unable to do so.

The Examiner asserts that Moura teaches the output of a single output signal to one of a plurality of communications interfaces.

First, the applicant does not agree that Moura, even if it is analogous art (which is denied), can be combined with Adams and Hamlin. The applicant reiterates from its previous response that the present invention works differently than Adams. There are many advantages of the present system over Adams: for example, existing impediments to DSL service can preclude a system such as Adams, where the system of the present invention will work; Adams system sends multiple channels to the subscriber, making possible the theft of channels, whereas according to the present system the subscriber only receives one channel and therefore has no access to other channels; and the present system can handle more channels – a virtually indefinite number of channels in fact – because the signals are separated *at the head end*, whereas there is a finite (and relatively low) limit to the number of channels available to subscribers using Adams' system, because there is a limit to the number of channels that a twisted pair telephone wire can carry irrespective of compression and/or modulation techniques used, especially given the large data demands of high definition video signals.

Further, the Examiner does not appear to have addressed the applicant's previous argument that if the Examiner characterizes Adams' CMA as a processor, where is the switching device recited in claim 21?

The applicant reserves further argument on these and other distinctions from Adams, because in any event **Moura does not teach the output of a single output signal to one of a plurality of communications interfaces.** Moura's description clearly establishes that Moura transmits a plurality of output signals – as defined in the present description – to each user interface. It is simply not possible in this system to transmit these multiple output signals over twisted pair telephone wires. For example:

“According to one embodiment of the present invention, the hybrid asymmetric architecture includes 6 Megahertz television channels downstream and telephone lines for upstream communications. Alternative downstream communications can be accomplished according to the invention with a selected high bandwidth broadband service, including for example high definition television (HDTV). Downstream communications according to another embodiment can be implemented with a selected low cost, high speed broadband modem.” Moura col. 1, lines 40 to 49.

“The outputs of the cable TV headends or TV transmitters 28 include pluralities of high speed downstream broadband radio frequency, i.e., RF, channels connected to respective remote users 29.” Moura col. 6, lines 10 to 13.

Further, the applicant respectfully submits that the Examiner's construction of Figure 1 is incorrect. This drawing shows each head end 28 or cell site 30 transmitting all channels to multiple communications interfaces 29. There is no switch between the transmitting devices and the users to selectively switch single channels to specific users. Rather, the channels are packetized and addressed to the specific users (which receive packets for all channels but decode only those destined for that specific user). Column 5, lines 22 to 52 cited by the Examiner is fully consistent with this, since the passage deliberately restricts the use of PSTN to the lower bandwidth upstream signals and teach only high bandwidth transmission medium (cable, satellite or wireless) for the downstream signals.

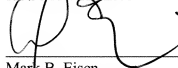
Ultimately, nothing in any of the cited references teaches that the server controls ***a single output signal*** of the input signals responsive to subscriber control signals and sends ***only that output signal*** to the subscriber communications interface. As previously noted, in Adams the head end must massively duplicate signals that are sent to the distribution hubs resulting in a huge overhead in the signals sent downstream. This is severely limited with twisted pair telephone wire because it cannot handle that bandwidth. In the system of the present invention this redundancy is eliminated; the server subsystem is optimized to transmit only the precise data request made by end users. This is a completely different concept, and allows the present system to operate a full high definition video system over a single twisted pair telephone wire.

The applicant accordingly submits that the claims as present written patentably distinguish the invention over the prior art.

Favourable reconsideration and allowance of the subject application are respectfully requested.

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